Naval Oceanographic Office
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NAVOCEANO Mine Warfare Technology Demonstrated

A team from NAVOCEANO's Mine Warfare (MIW) Program traveled to Alexandria, Va. in April to demonstrate new technology to Navy leaders aboard the High Speed Vessel (HSV) 2 SWIFT in Norfolk, Va. The SWIFT is the Navy's new MIW command and control vessel used as a demonstration platform for shallow water combat ship concepts.

NAVOCEANO's team showcased the Bottom Mapping Workstations (BMWs) installed on the SWIFT to Navy leaders and other Department of Defense representatives attending an open house aboard the SWIFT.

See **Mine Warfare,** page 4.

CAPT Philip Renaud (right), former commanding officer, RDML (Sel.) Timothy McGee (center), special assistant to the Oceanographer of the Navy, and CAPT Parker Lumpkin (left), interim commanding officer, salute the American flag during the Change of Command Ceremony on 23 April.

NAVOCEANO Commanding Officer, CAPT Philip G. Renaud, retired after 25 years of Naval service at a Change of Command/Retirement Ceremony held 23 April. CAPT Parker Lumpkin assumed command as interim Commanding Officer.

During the ceremony, CAPT Renaud reflected on his 25 years of Naval service and his experience commanding NAVOCEANO. He stressed the importance of the Command's mission to U.S. Navy forces and complimented his colleagues and employees, telling them that "nobody does operational oceanography better than the people of NAVOCEANO."

ADM William Fallon, Commander, U.S. Fleet Forces Command, boards a hydrographic survey launch during a recent visit to NAVOCEANO.

Fleet Forces Command Admiral Visits NAVOCEANO

ADM William J. Fallon, Commander, U.S. Fleet Forces Command, recently traveled from his command in Norfolk, Va., to visit NAVOCEANO.

ADM Fallon, accompanied by NAVOCEANO representatives RDML(s) Timothy McGee, CAPT Philip Renaud, and CAPT Parker Lumpkin, toured NAVOCEANO, the Major Shared Resource Center and hydrographic survey launches docked at the Pearl River at Stennis Space Center to become more familiar with the Command's capabilities and its support to the warfighter.

Due to a realignment last fall, NAVOCEANO now falls under Fleet Forces Command as an Echelon Four activity.

From the Commanding Officer

Musings of an XO in the Driver's Seat

CAPT Parker Lumpkin
Commanding Officer, Interim

Well, these are indeed interesting times! As I fill the gap as interim Commanding Officer, between CAPT Philip Renaud and CAPT Jeff Best, one of the perks is the use of this forum to send the bimonthly Commanding Officer's message.

First, let me tell you up front that it will be a collage of thoughts because I have only one shot, and I want to hit a variety of themes. Secondly, I have a unique perspective based on my view from the Executive Officer's chair. Thirdly, I will be leaving soon and would like to reflect and also look forward to the future.

The first order of business is to welcome the incoming Commanding Officer, CAPT Best. CAPT Best arrives with the enthusiasm, knowledge and energy to carry the NAVOCEANO torch to the next level. He will lead with passion tempered with humor and will be a fine leader of this extraordinary organization.

Generalities: As an 1800 METOC Officer, I had not seen the intricacies of all that NAVOCEANO brings to the fight until I was stationed here. After the Ocean Survey Program (OSP) mission evolved, NAVOCEANO needed to transition to support Navy at a tactical level, and we did not. In all of my jobs, I had little interaction with NAVOCEANO. Should I? Absolutely! You folks make a huge impact, but frankly, I did not know that and was not your advocate because I did not understand your capabilities.

I venture there are many more 1800s out there just like me, but those walls are crumbling due to some aggressive marketing. We must anticipate and understand warfighter requirements and respond accordingly. We must understand the tactics, techniques and procedures so we can format our data into knowledge that is readily consumed. Like it or not, we are a support organization, and even after we transition from level-of-effort to performance-based, we will remain a support organization.

We must continue to challenge the routine and question our work. We can simply do this by asking "who cares?" after we collect data, produce a product or complete a tasker. If we know our customers…then the answer will be "we care." If we don't know "who cares," then quit doing.

The Strategic Plan focused on relevancy, change, marketing, partnering and core competencies. You folks have come through in spades responding to the Global War on Terrorism, Operation Enduring Freedom and Operation Iraqi Freedom. There is not enough room to cite all examples; however, let me provide several examples where the old paradigms are being broken:

- An implemented Strategic Plan tied to the budget
- Conducted weekend contracting and shipping in support of USNAVCENT mission, while continuing the Public Affairs work, Special Olympics, IHMEP, Ocean Science Bowl, etc.
- First ever Operational Net-Centric Mine Warfare support from a war zone
- Shortfused combined military/civilian hydrographic survey in a war zone. Two years prior, we couldn't get a ship in that theater…we have since had two!
- Numerous deployments of joint civilian/military hydrographic teams
- Military deployments on white ships
- Successful deployments of the full-ocean-depth UUV, Submerged Mapping Systems and long-range UUV Seahorse
- We fixed a badly broken requirements process…and are still working on it!
- Round-the-clock surge modeling was clearly used to make tactical decisions in a war zone
- CMM-3 accreditation and fielding of NITES IV
- Twenty-four hour Customer Service Desk that fields and tracks all incoming product requests
- Unprecedented Riverine support to Special Forces

See **Lumpkin** page 5.

CDR William Schulz, former director of NAVOCEANO's Warfighting Support Center, assumed duties as the Command's interim Executive Officer on 23 April.

In August, Schulz will report as Commanding Officer of the U.S. Naval European Meteorology and Oceanography Facility in Naples, Italy.

CAPT (Sel.) Andrew Brown will assume duties as Executive Officer in late August.

NAVOCEANO News

NAVOCEANO Expands Open-Source Software Agreement

In May, the Navy Cooperative Research and Development Agreement (CRADA) between NAVOCEANO and the Open-Source Software Institute (OSSI) was modified to increase its scope. Under the modification, OSSI will provide open-source solutions to NAVOCEANO's Web Service initiatives.

OSSI's initial program was the development of a study with a goal of determining NAVOCEANO's existing use of open-source software and to explore additional opportunities to implement open-source solutions. The study was delivered in summer of 2003.

Open-source software are programs whose licenses permit users the ability to run the program for any purpose, to study and modify the program and to freely redistribute copies of the original or modified program.

This type software allows NAVOCEANO users more flexibility and freedom when developing or using software to support the Command's mission.

"Although NAVOCEANO is an operational activity, we understand the power of collaboration with academia, research and development organizations and industry," said John Lever, NAVOCEANO's Chief Information Officer. "Through this CRADA, OSSI will provide new open source software knowledge to NAVOCEANO, which will make our operations more efficient and effective. This partnership will benefit our Command in variety of ways."

Former Commanding Officer CAPT Philip Renaud signs a modified CRADA with John Weathersby, Open-Source Software Institute representative.

OSSI, a non-profit organization comprised of corporate, government and academic representatives, promotes the development and implementation of open-source software solutions within government agencies and academia.

NAVOCEANO News

Command Wins National Technology Transfer Award

Hydrography Department Director Ms. Barbara Reed and Mr. Jan Depner, Charting Projects Division, received the 2004 Federal Laboratory Consortium (FLC) Excellence in Technology Transfer Award in San Diego, Calif., last month.

The award recognizes federal employees who have accomplished outstanding work in the process of transferring a technology developed by a federal laboratory to the marketplace. The FLC calls the award "one of the most coveted awards in the field of technology transfer."

Ms. Reed and Mr. Depner received the award for establishing a Cooperative Research and Development Agreement (CRADA) that enabled the integration of government and industry-developed bathymetry data-processing systems and increased product production and quality at NAVOCEANO.

Ms. Brenda Smith, the Naval Meteorology and Oceanography Command Technology Transfer Officer and the Command's

Mr. Jan Depner and Ms. Barb Reed were recipients of the 2004 Federal Laboratory Consortium (FLC) Excellence in Technology Transfer Award.

See **Award,** page 6.

NAVOCEANO News

FST in Pascagoula; QM1 First in Hydrography Certification

NAVOCEANO's Fleet Survey Team (FST) recently participated in an oceanographic survey in the harbor waters off Pascagoula, Miss., with the mission of making navigation there safer and easier.

The team surveyed harbors and ports around Naval Station Pascagoula in support of port operations and Destroyer Squadron 6, based at the Naval Station.

It was the team's ability to produce updated charts in only a few weeks' time that led Pascagoula port operations to select the FST team to complete the survey.

The FST conducted the Pascagoula survey aboard a small, portable rigid-hull inflatable boat, which is designed to accommodate short-fused Naval requirements worldwide.

One of the newest members to the FST, QM1 (SW/AW) Christopher Birl, also benefited from the Pascagoula survey because he was able to use it as part of his Navy training.

As a result of his recent training as an FST member, Birl will soon become the first Quartermaster (QM) in the Command to receive hydrography training certification through the International Hydrographic Management and Engineering Program.

"As a member of the FST, QM1 Birl is a step ahead of most Quartermasters because he is learning the collection and creation techniques used to compile charts and products he and his peers use daily," said FST member LCDR Anthony Gilless, USN.

As a QM in the Navy, Birl's area of expertise has been mainly navigation. Now, he is expanding his knowledge and capabilities to hydrography. He is currently in on-the-job training and is scheduled to attend the International Hydrographic Management and Engineering Program, at which he will earn Hydrographic Surveyors Category "B" certification.

"Hydrography is a totally different ball game for me, and I've learned so much about data collection on my first survey," said Birl. "Hopefully, my participation in this training will open doors for other QMs to get into hydrography in the future."

QM1 Christopher Birl, Fleet Survey Team, steers the team's rigid-hull inflatable boat on a survey in Pascagoula, Miss. Birl used the survey to expand his hydrographic knowledge in preparation for his upcoming certification.

Mine Warfare, continued from page 1.

The BMWs' state-of-the art technology is being used to provide assessments of the ocean environment in support of the Navy's MIW community.

"In mine warfare, the environment drives the tactics—whether to hunt or sweep—and where the most effective asset employment can occur," said Ronald Betsch, NAVOCEANO's MIW Program Manager. "As the Navy moves toward through-the-sensor data collection and on-scene data processing, we are working with the warfighter to provide a capability to greatly enhance their mission planning and execution and reduce the tactical timelines and the risk to follow-on forces."

The stations installed aboard the SWIFT report and send information to the MIW Environmental Decision Aid Library, the tactical decision aid for MIW. They have the capability to ingest and process raw data from multiple on-scene sensors to determine bottom clutter and roughness and establish MIW bottom types, reducing the turnaround time to the warfighter.

Additional side-scan data are collected by using multiple Unmanned Underwater Vehicles and other tactical mine hunting side-scan sonars. This information is critical to accurately accessing mine clearance timeliness and risk to follow-on Naval forces. Within hours, an updated tactical environmental picture can be used in MIW decision-making.

NAVOCEANO's MIW Program will participate in five additional exercises this year to test the BMWs. They will also train the MIW community members to collect and process data on-scene.

The opportunity for NAVOCEANO to showcase its capabilities by working shoulder-to-shoulder with the MIW community solidifies the cooperation between Naval commands and heralds the joint nature of future Naval operations.

In the Community

GIS Computer Donated to Children's Museum

NAVOCEANO employee Dove "Dunny" Green helped deliver a flat-screen computer loaded with the latest Geographic Information System software to Lynn Meadows Discovery Center, located in Gulfport, Miss., in May.

Green worked with the Stennis and Long Beach Rotary Clubs to purchase the computer, which will be included in the Center's interactive children's exhibits, to teach children about mapping Earth with satellite and computer technology.

Students from Long Beach High School's GIS class, their teacher Mrs. Kathy Roberts, NAVOCEANO's Dunny Green, Sharon Mesick of the NOAA Coastal Data Development Center, and Lynn Meadows Discovery Center Director Ms. Betsy Grant explore the new flat-screen computer donated to the Center. The students loaded the computer with the latest in GIS software.

From the Commanding Officer, continued from page 2.

- An improved ship schedule and manning process
- Operational Risk Management for our over-the-side equipment

Strategic Plan: You, the men and women of NAVOCEANO, implemented the Strategic Plan, not the Front Office. I remember at CAPT Timothy McGee's Change of Command with CAPT Renaud, McGee referred to making change at NAVOCEANO was like using a rudder the size of a matchbox to steer a ship…you can't. But, he further added you affect change by trimming the sails.

I view NAVOCEANO as a tall ship in broad reach, its course set through the Strategic Plan and a talented crew to trim the sails. We are agile; we are relevant; and we are engaged. As I write this article, I just finished trimming the sails in response to the new Littoral Warfare Teams.

We had three strategic initiatives working groups doing fine work, but we needed to focus our limited resources to define and execute the concept of operations for the Littoral Warfare Teams. The Littoral Warfare Teams will be the new enterprise from which support to ASW, MIW and hydrography will flow. They will be forward deployed, using NetCentric warfare and FORCENet to provide Intelligent Environmental Preparation of the Battlespace using a variety of sensors, both organic to NAVOCEANO and through-the-sensor. This is a work in progress, but it will be an exciting new aspect of this office and this community.

We recently conducted an on-site briefing to ADM Fallon, Commander, U.S. Fleet Forces Command, on NAVOCEANO in general and specifically our Sea Enterprise business model. I believe we clearly articulated our business model and that we not only understand all facets of the oceanographic sciences, but we also understand the NAVOCEANO Enterprise and where we impact warfighter decisions. We are lean, mean and provide the best support possible within our resources. From our view, it was a resounding success, and ADM Fallon offered to help us achieve the next level. The course we are on is the right one; therefore, we must keep a steady helm and continue to challenge the status quo.

The Future: I would like to share a quotation from Alexander Graham Bell that reads, "When one door closes, another one opens; but we so often look so long and so regretfully upon the closed door, that we do not see the ones which open for us."

NAVOCEANO, these are the "good ol' days." We have state-of-the-art equipment, a talented and well-educated workforce and a viable mission supported by a Strategic Plan. We work with cutting-edge technology, have access to 15% of the top 5 supercomputers in the world, and we have a staunch supporter in our new flag officer.

NAVOCEANO, the Navy is changing, and we are positioned to change with it in a smart, deliberate and planned execution. I paraphrase George Bernard Shaw when I say, "Some see things, and say, "Why?" But we must dream things that never were and say, "Why not?"

It was the highlight of my career to be associated with the employees of the Naval Oceanographic Office. I will carry your torch with me and remain your biggest fan. Thanks for all you do for our Navy and our nation. Fair winds!

NAVOCEANO Events

Holocaust Survivor Speaks at NAVOCEANO Remembrance Event

Holocaust Remembrance guest speaker, Mr. Shep Zitler, accepts a memento of appreciation from CAPT Parker Lumpkin, interim Commanding Officer, after the 14th Annual Days of Remembrance Ceremony.

"In 12 years, Hitler and the Nazis killed over 6 million people, equating to about 25 percent of the U.S. population. Ninety percent of the Jews in Poland, my home country, were murdered. This is my holocaust," said Holocaust survivor and New Orleans, La. resident Shep Zitler as he showed a pre-Holocaust portrait of his 14-member family. Only he and one of his sisters, who moved to Palestine prior to the war, survived.

As the guest speaker for NAVOCEANO's 14th Annual Days of Remembrance of the Victims of the Holocaust ceremony, Mr. Zitler told his amazing story of survival in a labor camp where he was imprisoned, starved and beaten for more than five years. He also spoke of his move to the United States.

During the ceremony, which was hosted by NAVOCEANO's Equal Employment Opportunity Committee, Mr. Zitler shared his background and educated the large audience on traditional remembrance traditions in Israel. He also sang a traditional Yiddish song of survival with his son, who was also present at the ceremony and helped his father read excerpts from books that noted the deaths of his family members.

CAPT Parker Lumpkin, interim commanding officer, opened the ceremony and reminded the audience of the purpose of the annual event.

"We gather here today to turn the numbers that we know so well into the people that they were–mothers, brothers, sons and daughters. NAVOCEANO holds this annual event to ensure that something like the Holocaust never happens again," said CAPT Lumpkin.

As the audience departed, Mr. Zitler asked everyone to shake his hand and said, "If someone tells you the Holocaust never happened, you can say, yes it did. I shook the hand of a survivor."

Award, continued from page 3.

official FLC Representative, nominated Ms. Reed and Mr. Depner for helping her establish the CRADA.

The need for the cooperation stemmed from NAVOCEANO's collecting, processing and creating products with high-resolution multibeam sonar data for nearly 40 years, resulting in massive amounts of data. NAVOCEANO's precise collection technology resulted in the responsibility to collect, validate, compile the data and turn it into relevant information and products for the Navy.

In order to accomplish this task effectively, the Command entered into two CRADAs with IVS and SAIC, contracting companies at Stennis Space Center. These CRADAs integrate NAVOCEANO's Area-Based Editor (software that compiles data) with SAIC's Survey Analysis and Area-Based Editor (SABER) product and IVS's Fledermaus 3-D visualization product.

This CRADA resulted in several positive outcomes, including a tenfold increase in data validation that supports Naval operations in NAVOCEANO's labor-intensive editing process with an overall 50-percent increase in quality of survey deliverables. The project also eliminated a 2-year data validation backlog; saved $439,000 through mutual software development and long-term maintenance; and reduced personnel needed to validate the data by 33 percent.

In a congratulatory letter, Secretary of the Navy Gordon England wrote, "Your outstanding effort to develop and transfer an important and valuable technology reflects great credit upon the Naval Oceanographic Office and the entire Department of the Navy."

Department News

Engineering (N6): The Backbone of NAVOCEANO's Technology

From NAVOCEANO's desktop computers to systems integrated on the T-AGS vessels or deployed with Marine Corps and Navy warfighters, NAVOCEANO's Engineering Department (N6) is hard at work. That's because N6 is responsible for all of the Command's information technology, ship mission systems and a challenging on-scene system production line for the meteorology and oceanography (METOC) community.

N6 employees determine the technology needs to get the job done and ensure that these requirements are maintained and updated regularly. They manage NAVOCEANO's corporate assets including ship mission systems, the transition to operations for systems and databases from research and development, system integration, information technology and on-scene prediction systems, to name a few.

Because of the scope of its responsibilities, the department works closely with all departments, research and development activities, numerous commercial vendors and with the Navy and Marine Corps METOC community. NAVOCEANO employees, Command customers and warfighters are all involved in all phases of the systems engineering process from requirements definition to operational testing.

Examples of the department's recent work can be found in and outside the Command. In an expansion of the Survey Operations Center, N6 integrated a capability to transmit survey data in near-real time to NAVOCEANO from USNS Pathfinder to improve data quality control and speed up collection time. USNS Bowditch and Heezen will have this capability in June 2004.

N6 also designed Navy Integrated Tactical Environmental Subsystem (NITES IV), an on-scene system designed for rapid, worldwide deployment aboard Navy combatants, with Navy Mobile Environmental Teams and with Marine Corps units in remote and hostile environments. The system provides high-speed communications and access to satellite data.

Another major project within N6 is aligning with the Navy initiative, ForceNet, the operational framework for Naval warfare that binds together Sea Strike, Sea Shield and Sea Basing, described in the Navy's Sea Power 21.

As NAVOCEANO employees strive to implement the Strategic Plan in their way of doing business at the Command, N6 is leading a cross-departmental team to integrate NAVOCEANO products in a Web Service architecture and market these Web services to the Navy as part of the overall drive for ForceNet.

During the recent Fleet Oceanographic Survey Workshop hosted by NAVOCEANO, Fleet Forces Command's Mr. John Ellis said that the Web Services architecture N6 has implemented as a part of NAVOCEANO's Strategic Initiative is exactly the target architecture that Task Force Web (TFW) envisions for Navy use. He also mentioned that NAVOCEANO is the only command to succeed in TFW architecture implementation.

Mark Boston, a NAVOCEANO employee for 24 years and department head since 1997, accomplishes the N6

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Spotlight

"There is truly no average day."

Some employees think one job is a handful. Imagine having three. That's just a regular day for Terry Morris, a NAVOCEANO employee since 1990. Morris is the Technical Lead for the NAVOCEANO Web Services Working Group (NWSWG), chairman of the NAVOCEANO Web Services Architecture Working Group and a Systems Design Branch employee.

Morris' role in all three of these positions is to keep up to date on current Web information, which he enjoys.

"The best part of my job is getting to work on projects that are bringing the latest Web technologies and IT solutions to NAVOCEANO," said Morris.

To accomplish this, he devotes time to investigating, reading and learning about the latest and greatest Web, IT and security technologies. He also juggles several different projects for the NWSWG while providing technical guidance on others' Web Services projects. Another job is to improve the security and catalog services of Web Services.

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Terry Morris, Systems Design Branch, enjoys expanding technology at NAVOCEANO.

Special to the NAVOCEANO Ocean Frontier

A Letter from former NAVOCEANO Chief Scientist Mike Carron

Early this morning Stromboli erupted on the horizon as it has been doing for thousands of years. The midwatch aboard the North Atlantic Treaty Organization (NATO) Coastal Research Vessel *Leonardo* watched in awe. An early morning watch at sea during beautiful weather is a great time to reflect upon old friends.

I retired from NAVOCEANO two years ago when the opportunity arose to direct the Marine Mammal Risk Mitigation Program at the NATO Undersea Research Centre in La Spezia, Italy. Italy wasn't new to me or to my wife, Susan, as I was the NAVOCEANO representative to the Sixth Fleet staffs in Naples in the early 1980s. Even though we had established our permanent home in Bay St. Louis, and I loved my job at NAVOCEANO, we both always wanted to return and live on the Italian Riviera. This opportunity was too good to pass up, and I wasn't getting any younger!

In the past, the primary focus of the Centre was antisubmarine warfare research. But since the end of the Cold War, the Centre has shifted its focus to applied and shallow water areas including littoral antisubmarine warfare, mine warfare, rapid environmental assessment and force protection. This shift allowed me to bring the NAVOCEANO perspective to the problems facing NATO.

The Centre was one of the first institutions to address the possible correlation between the use of powerful military sonars and marine mammal mass strandings. In July 1996, a mass stranding of Cuvier's Beaked whales, coincided with a NATO sonar experiment in Kyparissiakos Gulf, Greece.

Following the publication of the specifics of the strandings in 1998, the Centre convened two panels of international experts to review the specifics of the sonar test and to recommend risk mitigation procedures for future sonar use.

The real-time support products at NAVOCEANO and the continuing modeling efforts at NAVOCEANO ... continue to play an important role...for safer experiments and exercises.

The major outcome of the meetings was the establishment of a Marine Mammal Risk Mitigation Project (MMRMP) within NATO and the commitment of significant funding and ship time. There were many basic unanswered questions posed: (1) Where are the animals, and can we build habitat models for them? (2) What are the causal effects of sonar on the species we suspect are at-risk? (3) Do we know enough about their "normal" behavior to assess negative changes during sonar experiments?

It is amazing how little is known about the habitats and normal behavior of marine mammals in the Mediterranean. With no centralized databases, the existing information was scattered among various organizations around the world. It was also clear that the skill base at the Centre was not sufficient to address all of our questions. As the Centre has first-rate ship and engineering resources, it was easy to establish partnerships with organizations in Italy, the United States and France who had the expertise we lacked, but not the resources to fully take on the problem themselves.

A focus of the project has therefore been to build active partnerships with scientists, often funded by the Office of Naval Research, from most maritime NATO countries. Together we jointly address the problem and unify our databases. For example, last year more than 100 scientists from 10 different nations participated in the 4-ship Mar Ligure Joint Experiment coordinated by the project.

NAVOCEANO and Naval Research Laboratory (NRL) have also been valuable partners. Not only do we utilize products from the Warfighting Support Center, but significantly, NAVOCEANO's Mark Snyder and NRL's Joal Newcomb have deployed, recovered and analyzed data from Environmental Acoustic Recording System (EARS) buoys as prototypes for devices we would like to have permanently deployed in our sonar test areas.

The real-time support products at NAVOCEANO and the continuing modeling efforts at NAVOCEANO and NRL continue to play an important role in the development of climatological and predictive habitat models to assist sonar researchers and operational forces plan for safer experiments and exercises.

Probably the project's most interesting work uses controlled exposure experiments (CEEs) to see how marine mammals react to sonar exposures. For the last three years Dr. Peter Tyack from Woods Hole Oceanographic Institution (WHOI)

See **Special**, page 9.

Special, continued from page 8.

and his team have collaborated with the MMRMP and partners aboard the NRV *Alliance* to track Mediterranean sperm whales, attach instrumented tags with suction cups and begin experimenting with CEEs. The sperm whale was selected because the species is usually easy to find and track both acoustically and visually and is not suspected to be seriously harmed by loud underwater sounds. We are using them as surrogates for the beaked whales, which seem to be most susceptible to damage and, possibly, behavioral changes, associated with military sonar use.

The problem of manmade noise and its impact on marine mammals is not going away. In October 2003, I represented the NATO Secretary General by receiving a petition with over 83,000 signatures strongly requesting that NATO cease using high-powered sonars. The recent report of the Commission on Ocean Policy also highlighted the problem.

As often happens during these long nighttime watches at sea, I remember all of you at NAVOCEANO and aboard your ships. Stromboli continues to erupt off *Leonardo*'s starboard quarter. Giovanni, the cook has just asked us if we would like some vino and pasta ai frutti di mare. Life is good.

Engineering, continued from page 7.

mission with 187 civilian government employees and 63 contractors who are always on the look out for new technology and a better way to get business done at NAVOCEANO.

"N6 employees are devoted to customer satisfaction, continuous process improvement, and to always looking for the most efficient and effective way to meet customer requirements," said Boston.

Future focus points for N6 are completing the transition to Navy/Marine Corp Internet, maintaining a secure network and getting the most out of scarce resources to maintain a capable ocean survey capability. New types of collection and on-scene prediction systems with faster and larger communication links are also on the horizon.

N6 has to make sure that as the Navy strives to provide the warfighter with the best possible information in the shortest amount of time NAVOCEANO is always a step ahead.

For Your Benefit

TSP Open Season Ends Soon

The Thrift Savings Plan (TSP) open season ends June 30, 2004. Here are a few answers to some common TSP questions.

What transactions can be made during an open season?

You may elect to start participating in the Thrift Savings Plan (TSP), and you may increase or decrease the amount you currently contribute to TSP. For Civil Service Retirement System (CSRS) and CSRS Offset employees, you may contribute up to 9% of your basic pay. For Federal Employees Retirement System (FERS) employees, you may contribute up to 14% of basic pay. The total amount of TSP contributions cannot exceed the IRS annual limit for elective deferrals, which is $13,000 for 2004.

While you may stop your enrollment in TSP at any time, if you stop during an open season you may resume participation in TSP in the next open season. Otherwise, if you stop enrollment outside of an open season, you are not eligible to start participating again until the second open season after you cancel.

How do you enroll or increase/ decrease TSP contributions?

TSP enrollment or TSP contribution increases/decreases are completed by using either the automated "EBIS" system at http://www.donhr.navy.mil or by using a telephone interactive voice response system at the Benefits Line, 1-888-320-2917, Option 1. You may also call a Customer Service representative at the Benefits Line to make these transactions, 1-888-320-2917, Option 4. Please note that TSP-1s are not accepted by the local DON Human Resources Service Center and will be returned unprocessed.

How do you allocate your TSP funds?

TSP funds allocation is not tied to an open season and can be done at any time. You may allocate any whole percentage of future payroll contributions and you may redistribute existing account balances. These transactions can be accomplished by accessing the TSP Web site at http://www.tsp.gov, by contacting the TSP Thriftline at (504) 255-8777 or by completing an original TSP-50 Investment Allocation and mailing it to the TSP record keeper at the address on the form. NAVOCEANO HRO has TSP-50s available.

Where do I find additional information?

You may go to the TSP Web site at http://www.tsp.gov for the "Summary of Thrift Savings Plan for Federal Employees" booklet. You may also contact TSP directly at the TSP Thriftline, (504) 255-8777, or talk to a Customer Service Representative at the DON Benefits Line 1-888-320-2917.

The NAVOCEANO Human Resources point of contact for TSP is Cynthia Warner.

Special Olympics

NAVOCEANO's Don Parker (right), a long-time Area III Special Olympics volunteer, assists a Special Olympian in the fishing activity. The Area III Special Olympics were held in April 2004 at John C. Stennis Space Center.

State Reps Visit

Mrs. Marsha Barbour, Mississippi's First Lady (left), and her son, Reeves, visited the NAVOCEANO Major Shared Resource Center (MSRC) in May as part of a Stennis Space Center capabilities tour. The MSRC's director, Steve Adamec (right), hosted the MSRC tour.

Military Award

CAPT Parker Lumpkin awards LT Richard Kennedy, Jr., a Navy and Marine Corps Commendation Medal for his outstanding service on the Fleet Survey Team.

BIG Outreach

The Stennis Space Center Blacks in Government (BIG) Chapter, led by President and NAVOCEANO employee, Lee Chambers, hosted its annual oratorical contest. Four local students won scholarships for their efforts. Pictured below are (left to right) DaMarcus Hughes, Moss Point High School, Whitney Battle, Harrison Central High School, Chidimma Osigwe, Ben Franklin Senior High School and Chandler Richardson, Poplarville High School.

Awards

Civilian Length of Service

5 Years
Sungat Altis
Marc Bourgeois
John Brusstar
Danielle Bryant
Christopher Carroll
Rafal Filipczyk
Katherine Foster
Jonathon Illich
Tracy Jordan
Paul Koski
Stefan Miller
Annette Schulte
Margaret Truitt
Lori Wagner
Cynthia Warner

10 Years
Jennifer Bushur
Steven Cash
Lanee Cooksey

15 Years
Annette Campbell
Darlene Crawford
Lleo Garner
Kevin Hart
Nancy Nelson
Jeffrey Stadalis

20 Years
Jerry Bird
Thomas Bowers
Louis Cosse Jr.
Stephen Farr
Larry Haddox
Sharon Madere
Scott McCarty

25 Years
Marsha Hart
Sandra Owen
Alvin Turner
Leonard Walker

30 Years
Mary Adams
James Braud
Lydia Dailey
Gerald Landrum
Carlos Mayoral
Mary Pyles
Robert Wahl

35 Years
Paul Cooper
John Dupuis
Mae Foster
John Iwachiw
Michael Kayes
Arthur Najjar Jr.
Richard Simmons

40 Years
Jeffrey Kerling

Military

Legion of Merit
CAPT Philip Renaud

Navy and Marine Corps Commendation Medal
AGC Juan Morales
AGC John Wasserman
LT Richard Kennedy Jr.
LCDR Anthony Gilless

NAVOCEANO Sailor of the Quarter
QM1 Christopher Birl

Promotions
EN2 Jason Summerville
EM2 Brian Ward

Safety Matters

Prevent Sunburn

During the hot summer months, many will enjoy the weather with outdoor activities, including hitting the beach to work on the perfect tan. However, sooner or later, that "healthy tan" will become unhealthy skin damage if you don't start dodging the sun rather than welcoming it. If you fish, golf, hike or go to the beach, avoid as much exposure as you can. You will still get plenty of sun.

Use a sunscreen with a Sun Protection Factor (SPF) of at least 15, and reapply the sunscreen every two hours. Use sunscreen on cloudy days. If you have a choice, stay in the shade or wear long sleeves and pants with a wide-brimmed hat.

The sun is strongest between 10 a.m. and 4 p.m. Hit the beach early, use the main part of the day for other activities and then go back later in the afternoon.

From Naval Safety Center SafeTips.

Farewell

A fond farewell to Ms. Melanie Gehman of Anteon Corp. who has worked in NAVOCEANO's Public Affairs Office for the past four years. Melanie and her husband, Carter Gehman, a geophysicist in NAVOCEANO's Geophysics/Acoustics Department, will relocate to Colorado in July. We wish them both the very best.

Ms. Ashley Simmons of Anteon Corp. will assume Ms. Gehman's position. NAVOCEANO's Ms. Shannon Breland will also join the staff as a student employee.

Spotlight, continued from page 7.

This may seem like a lot to handle, but Morris likes it that way.

"The great thing about my job is that there is truly no average day," said Morris.

Currently, Morris is working in-line with the Strategic Plan to design, test and implement a Service-Oriented Architecture that allows for the use of Web services including the Data Oriented Service Framework, mapping, plotting and catalog services.

The goal of the NWSWG is to provide relevant, authoritative information to the warfighter. To do that, Morris is helping the Command transition to the Net-Centric Warfare arena by implementing a common Web services-based hardware and software architecture, which allows NAVOCEANO to continue to be a player in Task Force Web, FORCEnet and the Global Information Grid.

Morris is looking forward to N6 and NWSWG having the first phase fully operational Service-Oriented Architecture and all of the Web services implemented by August.

"I really like working with the great people in the NWSWG," said Morris.

"There are always new issues or problems that need to be solved, and it is exciting to be a part of the discussions that lead to solutions."

NAVOCEANO Technology

New AUV Survey Tool of the Future

NAVOCEANO will take delivery of Subsurface Autonomous Mapping System (SAMS) II, a new AUV for deep-sea oceanographic data collection, in July 2004.

Both SAMS I and II are free-swimming, programmable and redirectable AUVs used to conduct preprogrammed, independent physical oceanographic data collections and side-scan sonar bottom-mapping surveys. They augment data collection efforts aboard NAVOCEANO's T-AGS 60 ships.

SAMS I, operating with a 300-kHz side-scan sonar system, has completed more than 50 missions during two surveys. Now NAVOCEANO will receive a new and improved version.

SAMS II will be equipped with optics and acoustic imagery packages. SAMS II will also have a dual-frequency (900- and 300-kHz) side-scan sonar system. The 900-kHz system provides higher-resolution acoustic imagery. Later in 2004, SAMS II will be retrofitted with a sub-bottom profiler that will be interchangeable with the video camera.

The SAMS suite of two vehicles will replace the Towed Oceanographic Survey System (TOSS). Cruising at 4 knots, SAMS I can collect 10 to 16 hours of side-scan and oceanographic data and can survey 40 to 65 nautical miles during mapping or oceanographic missions—double the speed of TOSS's 1 to 2 knots. Using an AUV also decouples ship motion from the data. This means an AUV will gather higher quality data.

"Our successes with SAMS I confirm our belief that AUVs are the survey tool of the future. The suite of SAMS I and SAMS II, with its video imagery and subbottom profiling capability, will allow us to collect the same types of data that made TOSS such a highly successful survey tool," said Cecil Pettway, Ocean Projects Division.

SAMS II is unique because of its state-of-the-art optics package that combines capabilities of TOSS and SAMS I.

TOSS is a 16-foot, 6,000-pound towed vehicle that houses various sensors, subsystems and fiber-optic technology and includes four support vans used for data analysis, data cataloging, technical support and transporting. It has been used on numerous surveys to collect high-resolution data at full-ocean depth. The merger of TOSS equipment and SAMS I capabilities into SAMS II will increase the effectiveness of deep sonar mapping and maximize transport and collection efficiency.

Both SAMS were developed for NAVOCEANO by the Woods Hole Oceanographic Institution Ocean Systems Laboratory.

SAMS 1 aboard a NAVOCEANO T-AGS 60 ship.

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